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U.S. Petent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a Application Number oliection of information unless it displays a valid OMB control number. 09/929.237 TRANSMITTAL Filing Date August 13, 2001 First Named Inventor FORM Stephen F. Gass Art Unit 3724 Examiner Name Ghassem Alie (to be used for all correspondence after initial filing) Attorney Docket Number **SDT 309** Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance Communication to TC Fee Transmittal Form Drawing(s) Appeal Communication to Board Licensing-related Papers Fee Attached of Appeals and Interferences Appeal Communication to TC Petition Amendment/Reply (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final Provisional Application Proprietary Information Power of Attorney, Revocation Affidavits/declaration(s) Change of Correspondence Address Status Letter Other Enclosure(s) (please Identify Terminal Disclaimer Extension of Time Request below): Request for Refund **Express Abandonment Request** CD. Number of CD(s) Information Disclosure Statement Landscape Table on CD Certified Copy of Priority Remarks Document(s) Repty to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name SD3, LLC Signature Printed name David A. Fanning Date Reg. No. August 15, 2007 33,233 CERTIFICATE OF TRANSMISSION/MAILING I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below: Signature Date Typed or printed name August 15, 2007

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| IN THE UNITED STATES PATENT AND TRADEMARK OFFICE |  |                       |
|--|--|-----------------------|
| In re Application of                             |  | Date: August 15, 2007 |
| JOEL F.  | N F. GASS, J. DAVID FULMER,<br>JENSEN, BENJAMIN B. SCHRAMM and<br>L. CHAMBERLAIN |                       |
| Serial No  | 0. : 09/929,237  | Examiner Ghassem Alie |
| Filed  | : August 13, 2001  | Group Art Unit 3724   |
| For  | : LOGIC CONTROL FOR FAST-ACTING SAFETY SYSTEM                                    |                       |

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

## REPLY BRIEF

# 1. Real party in interest.

The real party in interest is identified in the Appeal Brief.

## 2. Related appeals and interferences.

Since the filing of the Appeal Brief, the Board issued a decision in appeal 2007-0266 (application 09/929,227). The opinion is dated April 30, 2007 and a copy is attached. Additionally, application 09/929,221 has been allowed. A notice of appeal has been filed in connection with application serial number 10/189,027. The other appeals identified in the Appeal Brief remain pending.

### 3. Status of claims.

The statement of the status of the claims is in the Appeal Brief.

# 4. Status of amendments,

All amendments have been entered.

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## 5. Summary of claimed subject matter.

The claimed subject matter is summarized in the Appeal Brief.

# 6. Grounds of rejection to be reviewed on appeal.

The grounds of rejection presented for review are set forth in the Appeal Brief.

## 7. Argument,

Applicant and the examiner disagree on whether Razzano (US Patent 6,654,909) is prior art. Applicant submitted two provisional patent applications filed before Razzano to show prior invention. The examiner, however, says the two provisional applications do not sufficiently disclose the invention as claimed. Specifically, the examiner says the provisional applications do not disclose a control or self-test system that tests the reaction system without having to operate the reaction system, a control system that determines the charge on a capacitor, or a control system that disables a motor. (Examiner's Answer, pages 9-10.) The examiner is incorrect.

Provisional application 60/182,866 discloses a control or self-test system that tests the reaction system without having to operate the reaction system at several locations, including Figure 9 and the following text:

It also may be desirable to provide a logic control system configured to conduct various self-test safety checks, etc., when the machine is switched on or off and during use, to ensure that the safety stop is operating properly and to prevent inadvertent triggering of the brake system. ... A flowchart illustrating an exemplary logic sequence is shown in Fig. 9. (Declaration Under 37 CFR 1.131 of Dr. Stephen F. Gass, page 40 of Exhibit 2 to the declaration or page 39, lines 10-15 of the application itself.)

The "safety stop" and "brake system" discussed in this quote are part of the exemplary reaction system described in the application. As explained, a logic control system can

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The provisional application discloses a control system that determines the charge on a capacitor as follows:

The system then checks the charge stored in the charge storage device, as indicated at 612. This step ensures that sufficient charge is present to melt the fusible member if contact is detected. If sufficient charge is not detected, the logic system responds with an error signal if sufficient charge is not detected with a determined time period. (Declaration Under 37 CFR 1.131 of Dr. Stephen F. Gass, page 41 of Exhibit 2 to the declaration or page 40, lines 16-19 of the application itself.)

In the exemplary embodiment described in the application, the charge storage device is a capacitor bank. (Declaration Under 37 CFR 1.131 of Dr. Stephen F. Gass, page 30 of Exhibit 2 to the declaration or page 31, lines 7-9 of the application itself.) The capacitor bank and fusible member are part of a reaction system, specifically, a brake system. The capacitor bank provides a surge of electricity to melt the fusible member and release a spring that pushes a brake into the spinning blade to stop the blade.

The application discloses a control system that disables a motor as follows:

As another example, power to the motor assembly may be shut off if an error occurs other than contact detection such as Incorrect blade-to-charge plate spacing, insufficient charge on the charge storage devices, etc. (Declaration Under 37 CFR 1.131 of Dr. Stephen F. Gass, page 42 of Exhibit 2 to the declaration or page 41, lines 10-12 of the application itself.)

This excerpt teaches disabling the motor if the logic control system detects problems with blade-to-charge plate spacing or charge on the charge storage devices, both of which are part of the exemplary reaction system described in the application.

Page 3 - REPLY BRIEF Serial No. 09/929,237 These passages, and others identified in the Appeal Brief, clearly show that the provisional applications disclose the claimed invention. Thus, applicant's invention predates Razzano and Razzano is not prior art. See 35 USC 102(e).

Applicant and the examiner also disagree on whether Razzano is analogous art. The examiner says Razzano is analogous simply because a wheel in a car and a saw blade both rotate. The examiner's position, however, ignores the test set forth by the Federal Circuit, which looks to see whether the device disclosed in the questioned reference has a purpose, function, structure and operation similar to those of the claimed invention, or in other words, whether the reference is reasonably pertinent. In the case at hand, Razzano's wear detector for vehicle brake shoes has a different purpose, function, structure and operation, as explained in the Appeal Brief, and as a result, Razzano is non-analogous.

Another disagreement between applicant and the examiner is whether Razzano's detector can determine the status of a brake pad without operating the brake. Applicant understands that Razzano's detector checks the status of a brake pad only when the brake is operated, as explained in the Appeal Brief. The examiner, however, thinks the detector can detect the status of a brake pad even when the brake is not operated, and he cites the following passage from Razzano to support his position:

[I]n the event central control unit 32 detects no electric signal when braking, or detects a constant abnormal signal in any operating condition, this may mean, for example, that brake pad 1 is jammed with respect to brake disk 2, that detector 14, 109 is not connected properly to brake pad 1, or that the circuit connecting the detector to the central control unit is damaged. (Column 4, lines 31-37.)

Page 4 - REPLY BRIEF Serial No. 09/929,237 This passage, however, says the control unit can detect a problem "when braking" or when in an "operating condition." It does not say the control unit can detect a problem without operating the brake. Moreover, other passages from Razzano clearly explain that the control unit detects the status of a brake shoe only "when surface 10 and, therefore, terminal 35 itself are positioned contacting brake disk 2." (Column 3, lines 20-21.) Thus, Razzano fails to disclose a control system adapted to test a reaction system without having to operate the reaction system.

The examiner's other comments are addressed by the Appeal Brief, including his comments about Doherty (US Patent 6,325,195).

Applicant points out that the examiner did not dispute applicant's arguments that Balban (US Patent 3,863,208) is non-analogous and that there is no suggestion to combine Balban with the other cited references.

## 8. Claims appendix.

The claims are set forth in the Appeal Brief.

#### 9. Evidence appendix.

A declaration of Dr. Stephen F. Gass with exhibits was submitted with the Appeal Brief.

## 10. Related proceedings appendix.

Attached is the decision dated April 30, 2007 from appeal 2007-0266, application 09/929,227

Respectfully submitted,

SD3, LLC

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## CERTIFICATE OF TRANSMISSION/MAILING

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Date: August 15, 2007

David A. Fanning

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